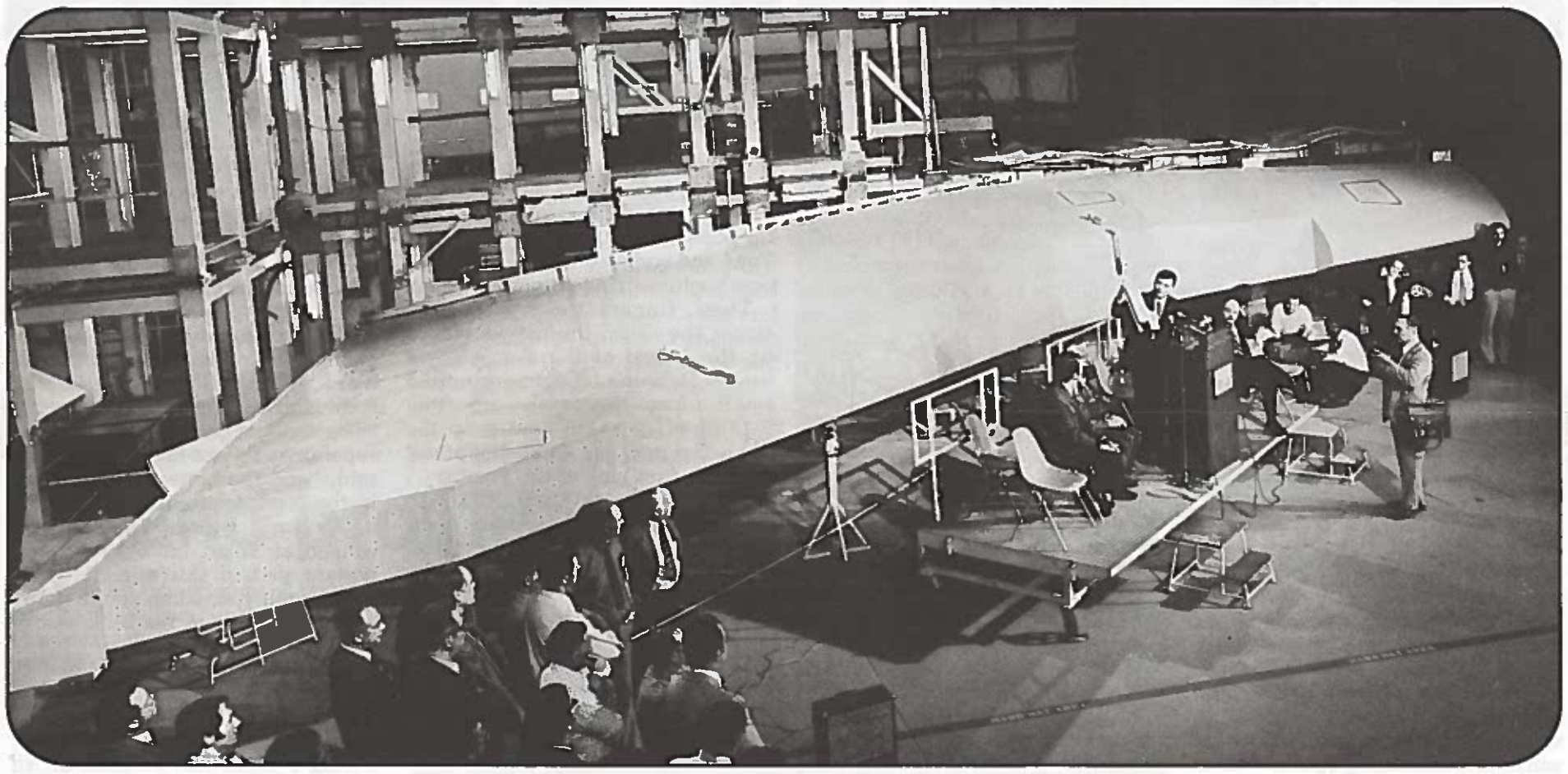
GRUMMAN plane news

Vol. 34, No. 9, Bethpage, N.Y., May 9, 1975



First Shuttle Wing bound for Coast

The perfect on-time delivery of Grumman's first Shuttle Wing was marked by a short ceremony and some hoopla April 25 with former astronaut and NASA technical adviser Fred Haise, Jr. present to offer his congratulations on behalf of NASA. A few days later the two wing panels totaling 12,000 pounds in weight were launched on their long trip to Palmdale, California, where they will be joined to the Shuttle Orbiter, built by Rockwell International.

Calling the wing "a typical good Grumman product," Haise praised the Grumman effort for its on-time performance and gave his audience of about a hundred Grummanites and news media representatives a thumbnail sketch of the Shuttle program's background. Vice President Tom Kelly, director of Space Programs at Grumman said he was "particularly pleased to deliver the wing on time — it didn't come easy." Addressing the many people who worked on the wing Kelly said "I'd like to personally thank every one of you — you did a terrific job."

The two massive wing panels began the 18-day journey to Palmdale a few days later beginning with a tricky two-hour haul from Bethpage to Oyster Bay, Long Island by oversize transport. There they were put aboard a waiting barge for the trip to Port Elizabeth, New Jersey. At Port Elizabeth they were transferred to an ocean-going container ship for the two-week journey to the West Coast, via the Panama Canal.

The Grumman-built wing consists of one port panel and one starboard. Each measures 30 feet from tip to fuselage portion, and 60 feet in width where it joins the fuselage of the Orbiter.

When the two wing panels arrive in Palmdale they will receive their carbon-carbon leading edge section, produced by Ling Temco Vought.

The Shuttle Orbiter's unique properties as the world's first reusable — and winged — space vehicle produced some unusual challenges for the Shuttle Wing team. Says Kelly: "The Shuttle operates most of the time in space where the wing's temperature drops to minus 100 degrees Fahrenheit. When it reenters the earth's atmosphere for its glider landing, its high speed produces a tremendous amount of heat on the wing surface. This heats the exterior surface of the wing structure to a maximum of plus 350 degrees Fahrenheit, while the center remains close to minus 100. It was those gradations in temperature that presented the biggest challenge to our engineers and production people.

"This challenge was met," adds Kelly, "and we made our May 1 deadline, thanks to the cooperation of our suppliers and to the selfless devotion of all the Grumman people who worked on the wing."

Photos by Larry Van Wallendael

Stuart meets F-14... Wow!

STUART, FLA. — The excitement was mounting ... everyone could feel it. Even the old hands, those who know the piercing sounds and acrid odors that go hand-in-hand with jet aircraft operations, could sense that something special was in the making. And there was. For the first time, a Grumman F-14A Tomcat was to fly-by, and land, at Witham Field, home base for the 800 or more persons who work at the Grumman facility at Stuart.

The men and women of Plant 77, who fabricate the aft-section center body and make certain systems installations on the F-14 as well as produce avionic and structural components and ground-support equipment for the A-6E, EA-6B, and E-2C, had never seen a Tomcat, except on film. And they had asked when, if ever, they were going to get a close-up look at the plane. This was it: Thursday, May 1, 1975.

Even more unusual, there had been rumors that President George Skurla would use the occasion to visit Stuart ... and would make the 950-mile flight from Calverton in the back-seat of the supersonic swing-wing Tomcat fighter.

Word got around. As the time neared for the plane's arrival, hundreds of men, women, and children, some from Grumman families, some Grumman retirees living in the area, and other local residents who had heard of the F-14, gathered at the entrance to the field. As the 800 or so men and women working at Stuart started to move out of the plants to witness the arrival of the plane, Vice President Jim Zusi, who heads Stuart Operations, invited those standing near the gate to come and join the Grumman contingent on the taxi strip.

The stage was set. With all eyes looking toward the horizon, the first plane that appeared turned out to be a Gulfstream I, arriving at Stuart on its weekly commuter trip with Grumman personnel and parts. It received a smattering of applause, but soon all eyes turned toward the skies again. Then, off on the horizon, a sleek, two-engine jet started its approach to the field ... but when it got within clear viewing distance it was apparent that it was a magnificent machine, but not the expected one. It was the Grumman Gulfstream II carrying Grumman Corporation Board Chairman Clint Towl and some associates who were on a business trip to Stuart.

Then, fingers tracing its path across the skies, the crowd picked up the arrival of the Tomcat over Stuart. Delaying its entrance until a small plane cleared the area, the F-14 then came in low over the field. The men and women of Stuart got their first look at the Tomcat ... and it was a fleeting one. Although it wasn't the fastest possible high-speed pass that the F-14 can make, it was fast enough to make a lasting impression.

Climbing almost straight up into the sun, the F-14 went into an Immelman turn — a vertical pull-up to inverted horizontal flight and then a turn into level flight — streaked across the sky again to set up a final landing approach. A few minutes later, with gear and flaps down, the Tomcat flew low and slow over the runway, finally touching down as it approached the main viewing area. It was an impressive display.

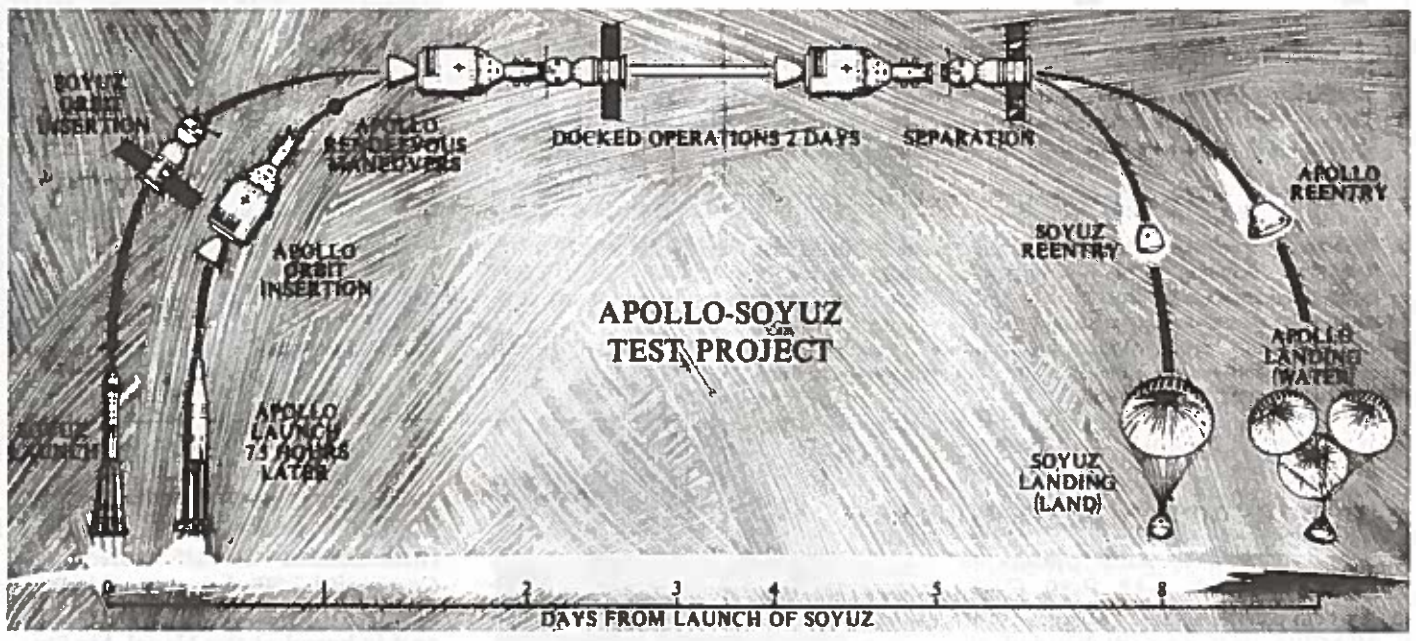
After the plane was taxiied into the reception area and its engines shut down, the canopy opened to reveal a happy crew — the broad smiles they wore made it obvious that they were as elated as any of the onlookers. Cdr. John Donis of the Naval Plant Representative's office in Calverton was the pilot of the F-14, and, sure enough, right behind him in the WSO position was George Skurla, President of Grumman Aerospace. The applause for both men ... and the Tomcat ... was loud and long. One woman, when informed that the guy in the blue hard-hat in the back seat was really Grumman President George Skurla, exclaimed: "Coming down to Stuart in the F-14. Wow. What a way to go. Beautiful!"

After an introduction by Jim Zusi, Skurla then presented Commander Donis to the crowd, thanking him for the ride down to Stuart. And it was evident that the Grumman President was enjoying the moment. "The Tomcat is the greatest air-superiority fighter in the world," he said, "and the hottest fighter pilots in the Navy are fighting to get into it. It's a real winner. The men and women at Stuart build a very important part of this aircraft, and I want to tell you, when you're flying across the skies in the back seat of the F-14, you realize just how important it is to produce a quality product."

Skurla, who recalled that he first came to Stuart in the early Fifties during a flight test program on an earlier Grumman plane, noted that the facility has since grown in both size and the numbers of people working at the plant, and their work has become so diversified that now "The men and women at Stuart produce components for four very important and outstanding planes for the Navy, and also for several other planes for the Army and some friendly foreign governments." He left no doubt about it: "This operation is as important as any one in the whole Grumman system." He also stressed the need for continued quality workmanship to keep the A-6, E-2, F-14, and EA-6B high in the Navy's future operational plans.

While ending the ceremony, Skurla turned, sweeping his hand toward the sleek Tomcat standing at rest, and said: "Folks, take a look at a real live Tomcat. Be proud of it ... it's your handiwork."

Build radio gear for US-Soviet shot ...



Grumman has been given the task of bringing Americans and Soviets together — in space that is — as its part of the first international manned space mission. The company will provide a communications system for the joint US-USSR Apollo-Soyuz Space Project that will develop compatible rendezvous and docking systems to demonstrate the feasibility of an international rescue mission.

The communications system, originally designed for the Apollo Lunar Module, was chosen by the National Aeronautics and Space Administration and by the USSR Academy of Sciences for installation aboard the Soviet Soyuz spacecraft. Specially modified for the Apollo-Soyuz project, the communications system was checked out with related LM ground support equipment at the Soviet Launch Center at Baikonur, in the USSR.

The system consists of a VHF transceiver assembly and a Ranging Tone Transfer Assembly (RTTA). The VHF transceiver will provide voice communication between the Soyuz spacecraft and the Apollo Command Module.

Rendezvous and docking of the two spacecraft will be carried out with the aid of the RTTA which will serve as a transponder, for mutual identification, and as a ranging device that will determine the relative location and distance between the two craft.

The Soyuz and Apollo spacecraft are slated for launching on July 15 of this year. The Soviet craft will be launched from the Soviet Cosmodrome at Baikonur seven-and-a-half hours before the Apollo is launched from the Kennedy Space Center and will already be in orbit when the American ship joins it in space and transfers to the same docking orbit.

The actual docking will take place two days into the flight and will last for approximately two days. During these two days, the crews will exchange visits through a special airlock that is designed to allow the astronauts to adjust to the difference in atmospheres and air pressures of the two craft.

The spacecraft crews will also perform a number of scientific experiments while in docked flight, including the Grumman-prepared study of the solidification of magnetic materials in low (virtually zero) gravity.

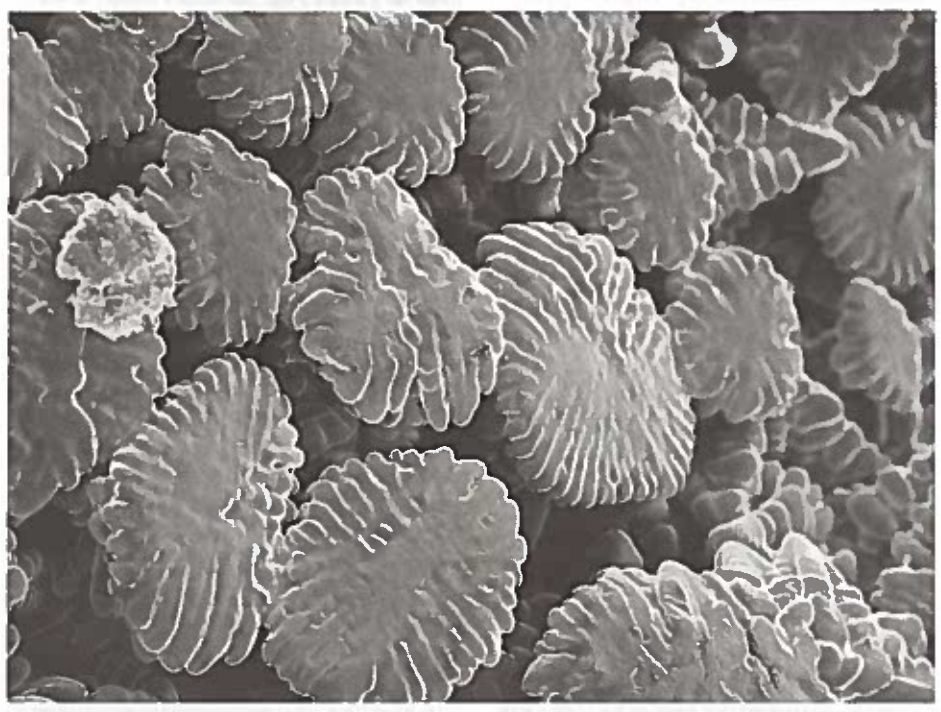
But the biggest experiment will be the international mission itself which is already shaping up less as a unique technical challenge than as a cultural and linguistic feat. About 700 hours of the astronauts' 2,400 training hours are being devoted to instructions in Russian. The unusual nature of the flight prompts the intriguing questions: What language do five astronauts speak from two different nations while in the international domain of outer space? The not-altogether obvious answer is: The Russians speak English and the Americans speak Russian.

... and provide six onboard experiments

A modest experiment slated for the Apollo-Soyuz test project this summer may be just an interesting scientific footnote, or it may prove to be the basis for industries of the future. Grumman Research Department scientist Dave Larson, principal investigator for the experiment, is betting the results will surprise both doubters and supporters alike.

The experiment, successor to a related series aboard the Skylab, will call for the astronauts to use a small electronic furnace to melt samples of various magnetic alloys, which will then cool and solidify under controlled conditions in near-zero gravity. The U.S. team has six such tests slated for Apollo-Soyuz and the Soviets have one. Because convection within the molten metal and other gravity effects have been eliminated, experimenters should be able to attain results practically unobtainable in a terrestrial environment.

Under weightless conditions, light and heavy materials remain evenly distributed throughout an alloy. In a gravity environment, the heavy materials sink while the alloy is solidifying, causing the resultant material to be nonuniform. Space processing would allow the fabrication of chemically and structually near-perfect crystals, ideal for transistors and other applications. More permanent permanent-magnets and advanced alloys are some of the other products that could result from the experiments.



Sea anenomes? Not really; actually you're looking at a portrait of nickel-tin crystals taken by a scanning electron microscope. The alloy was melted and solidified in the weightless conditions aboard Skylab II and produced this interesting and exotic-looking structure. (Magnified 200x)

Similar photos by Larson will soon be on exhibit at the American Museum's Hayden Planetarium in New York City.

"Though manufacturing operations in space may seem far-fetched," says Larson, "we should remember that on a per-pound basis, many high technology products may be more expensive than producing a similar product in space; that is, of course, if the experiments show it can be done better in space."

Considerable scientific interest

So far, according to Larson, results from Skylab experiments and a number of earthbound experiments have aroused considerable scientific interest but no conclusive commercial results.

"The Apollo-Soyuz experiment is intended to lay a framework for the upcoming Space Lab flights," says

(Continued on page 5)

people

Ever since her first ride, at the age of seven, in an open-cockpit Curtis Robin bi-plane, Marianne Nutt's life has revolved around aviation.

While in her teens, she began her career in aviation by becoming a member of the first squadron of Civil Air Patrol at Billy Mitchell field in Wisconsin; and earned her pilot's license by the age of 18. During World War II, she joined the U.S. Army flight training detachment at Sweetwater, Texas, and received her wings in 1943. As a member of the Army Air Corps Ferry Command, she flew such planes as the P-40, P-51, P-47, P-39, C-46, C-47, and B-24. When her WASP's unit was disbanded in December 1944, Marianne enlisted in the U.S. Marine Corps and eventually received her training as a flight tower control operator. She worked at the USMC Air Station at Cherry Point, N.C. for 15 months before leaving the Marines. After active duty, Marianne became a member of the Civil Air Patrol on Long Island, and the U.S. Air Force Reserve, in which she recently retired as a major.

In 1954, Marianne joined Grumman as a control tower operator at Bethpage. Recently, she was appointed chief air controller at Grumman's Stuart, Florida, facility.

"Sitting up in the control tower about 60 feet off the runway, I literally get a 'birds-eye' view of the airport," says the Stuart chief controller. "I was one of the few people who witnessed the maiden flights of the Gulfstream, E-2, Mohawk, F-11, and AG-cat ... and I saw them all at eve level." But, perhaps, the incident that stands out most in Marianne's mind was the arrival of the Apollo astronauts during the late 60's. "I get the chills even now when I think about the aircraft approaching the airstrip while hundreds of Grummanites were standing on the ground near the hangars cheering."

Marianne is presently in the process of obtaining a pilot flight review for her commercial license for recreational flying and still has a strong urge to hop into the cockpit of any aircraft. This past winter, while touring Calverton with other women from the Calverton faility, she recalls: "Pete Tumillo said, 'Perhaps one of the ladies wearing slacks would like to hop into the F-14.' Before he could finish the sentence I was in the cockpit; after he gave us a pilot briefing, I announced to Pete I was ready for taxi."

Marianne has been in the cockpit of many Grumman planes, and on occasions has even flown in the Grumman Goose from the

Marianne Nutt

right seat. But of all the aircraft she has seen close-up she has "never viewed a cockpit arrangement more designed for the pilot than the one in the F-14 Tomcat."

Over eight weeks ago, Marianne bid farewell to the Bethpage Airport and flew down to Stuart, Fla., to become its first chief controller. Plant 77 has always had a communications tower overlooking the airfield but it had been used primarily for testing the Grumman Mohawk, Albatross, and, for a time, Intruder tanker. But on April 1, the flight control tower was officially opened, making Witham Field at Stuart a controlled airport authorized by the Federal Aviation Administration.

The newly appointed chief controller approaches her new assignment with this philosophy: "Being a supervisor entails the same type of working relationship you must have with a co-pilot," says the chief controller. "We have the responsibility of monitoring the skies and runways so the pilot can take-off and land safely. That means the combined effort of everyone up here in the tower. That's basicly the same on any job for that matter ... total team effort."

They've been honored

Harold Ruff of Plant Protection has been elected to the board of directors of the Timothy Hill Boys Ranch in Riverhead, an organization that provides homeless boys with a family of their own ... Lt. Cdr. John Parker of Attack Squadron 35 recently logged his 1,000th hour in the A-6 Intruder ... and considering the commander also has 1,000 hours in another Grumman plane, the S-2 Tracker, that practically makes him an honorary member of the Grumman family. Parker received his wings in 1963, transitioned to the Intruder in 1969, and has been flying the twin-jet all-weather attack plane since that time. That period included a cruise to the Tonkin Gulf aboard the USS Midway. Commander Parker is presently administrative officer for VA-35, and is based at the Naval Air Station, Oceana, Va. ... Bob Handwerker of Grumman's Quality Control department at Pt. Mugu was saluted recently by Commander J.S. Bouchard, who heads aircraft maintenance at the naval site, for assistance he provided to a sailor who was involved in an accident near the naval base. Handwerker saw a motorcyclist hit a guard rail, get thrown from his cycle, and suffer an injury. He got the man to sick bay, stood by to offer assistance until the young man could be transported to a hospital. It's apparent that there's at least one person who cares.

Coming events ...

With the bi-centennial celebration scheduled to begin this summer, many local groups and organizations are already getting ready to celebrate the 200th birthday of our country. In Huntington, for example, Bill Girrier says volunteers are being sought for the "Huntington militia" which will be participating in bi-centennial activities. Interested? Call Bill on HA 3-8437. ... The Long Island Association of Model Airplane Clubs will present two indoor meets, the first at Cantiague Park in Hicksville on Sunday, May 4, and the second at the Nassau County Arena, Long Beach, on Sunday, May 18. Registration on both days starts at 8 a.m. and flying will continue until 5 p.m., when awards will be presented. According to Jean Pailet of Administration, Plant 35, prizes will be awarded by the association and by Grumman Aerospace to first, second, and third place winners in events for rubber-powered and glider models; there will also be events for flying scale models which are accurate miniature replicas of full-sized aircraft. In addition, there will be numerous awards for youngsters who will be competing in their own age divisions. Admission is free.

Program for young

Tom Tatarian, a supervisor in the EB Weld area in Plant 2, wants young people in the Smithtown-Commack-St. James-Nesconset - Hauppauge - Kings Park area to find out more about the Civil Air Patrol. Tatarian, a lieutenant colonel in the Air Force Reserve, is advisor to the CAP unit which is open to boys and girls 13-17 years of age. CAP's objectives are to "develop youth interest in aerospace ... mold aerospace leaders of tomorrow ... teach the basis concepts of flying through academic instruction in aerodynamics and opens the door to student pilot status." For more information, call Tatarian at 516-584-7304.

Named to new posts

Among those who received changes in assignments recently were: Philip Vassallo, director of Corporate Procurement Operations, reporting to Administrative Vice President John O'Brien; and Bill Paxson was appointed assistant to Vice President Ralph Tripp, general manager, Great River Operations. Paxon's responsibilities involve advanced planning for both Great River and Training Systems operations.

Others name to new positions in recent weeks include: CALVERTON OPERATIONS — Frank Rath, foreman, Tool Fabrication, and Walter Becher, foreman, Final Assembly Outside Operations, both of Plant 6; TECHNICAL OPERATIONS — Ralph Siegel, special assistant to the director of Product Engineering for Operational Readiness; Henry Janiesch, engineering manager, Advanced Attack, Product Engineering; Bob Kerle, Job Enrichment coordinator, Technical Operations Administration.

MATERIAL MANAGEMENT — Norman Heilweil, manager, Systems Procedures; Francis Nosek, manager Systems Operations, all of Material Management Systems. Also, Edgar Williams, manager, Administrative Services, Material Management Administration; Harry Weir, manager, Aircraft Programs Material; Edmund Marmurowski, assistant manager, Support; William Phillips, manager, Special Programs, all of Program Material Management.

Able descendant. In April 1960, test pilot Bob Smyth flew the A-6A Intruder on its maiden flight. Almost to the day 15 years later, Smyth (R), Flight Acceptance director, flew with WSO Dave Cooke in the latest improvement in the Intruder family – the TRAM-equipped A-6E. (Photo by Dick Sander)

A-6E TRAM proving Intruder isn't getting older ... but better

On April 19, 1960, test pilot Bob Smyth climbed into the first Grumman A-6 Intruder for its maiden flight from the Calverton Airport. Almost 15 years to the day, Smyth, now director of Flight Acceptance, once again got behind the controls of an Intruder at Calverton. And though it was still the same basic airframe, he found considerable differences in the A-6E TRAM Intruder as compared to the first Intruder (then called A-2F) that he flew.

Target Recognition Attack Multisensor (TRAM) is the latest in a long line of improvements in the Intruder's all-weather, air-to-ground attack capabilities. TRAM provides a new means for acquiring and identifying targets, in addition to improving weapon delivery-accuracy for unguided and for laser-guided bombs. The main components of TRAM system are located in a 20-inch diameter turret designed by Hughes Aircraft Company, which is mounted on the underside of the Intruder nose.

Comparing his first flight in the A-6A to the A-6E TRAM, Smyth says, "From a pilot's viewpoint, the flying qualities of the Intruder 15 years ago and today's newest Intruder A-6E TRAM are basically the same — they both fly like a dream." But Smyth added that the wing-tip speed brakes are a great improvement over the original fuselage ones, but he does miss the "novelty" tilting tailpipes on the original version — "they were unique."

The Flight Acceptance director attributes much of the Intruder's success over the 15-year span of constant updating of its weapon-system capabilities, to the original airframe design. "The airframe designed in 1959 lends itself well to modification ... it was designed as a true workhorse."

According to Smyth, a most notable improvement in the A-6E TRAM version is the FLIR (Forward Looking Infrared) display. "It greatly extends the crew's visual abilities by giving them continuous television-quality pictures of targets. They are now able to find the target sooner, and identify it clearly in both day and night conditions. And, by using sophisticated weapons such as the "smart" laser bombs with the new TRAM laser, the Intruder crew is able to get greater weapons-delivery accuracy than ever before."

During his anniversary flight, Smyth flew with WSO Dave Cooke who has over 3,000 flight hours in the Intruder. They flew "in restricted 'soup' visibility over the Long Island Sound, and by using the FLIR display, were able to view an oil rig including all the people working on it."

Since Bob's first flight in A-6A No. 1, 549 Intruders have been built, including 61 new A-6E aircraft off the production line and to date 88 older A-6A's have been modified to the new "E" configuration. Three pilot-production TRAM-equipped A-6E Intruders are scheduled for delivery to the Navy for test and evaluation this year. In Bob's opinion, with the addition of TRAM, the Intruder family line just may be extended for another 15 years.

Provide onboard experiments

(Continued from page 3)

Larson. The Space Lab flights are slated to begin in 1980, which means that the Apollo-Soyuz flight will be the last chance for many years to perform experiments aboard a manned space mission.

The opportunity for experiments in space has been limited. Space processing experimenters have been trying to simulate conditions in space as best they can with earth-bound experiments, using aircraft, sounding rockets, and drop towers. All three devices enable experimenters to duplicate weightless conditions without leaving the atmosphere. But all three suffer from the disadvantage of severe time restraints.

The sounding rockets at White Sands are good for about five to seven minutes, and the drop towers (where the experiment is literally dropped down a shaft) for about three-and-a-half to five-and-a-half seconds. Aircraft testing lasts as long as a minute but is unsatisfactory because of the uncertain changes in "g" forces. The best test, however, is the real thing — an extended space flight. "The importance of the upcoming Apollo-Soyuz flight to space processing cannot be overestimated," says Larson.

If the results from the July flight are as good as expected, the Apollo-Soyuz will lay a solid foundation for a more extensive series of tests for upcoming sounding rocket tests and for the Space Lab flights of the 1980's.

GRUMMAN plane news

Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

Manager, Internal Communications
Brian Masterson

Associate Editors
Kathy Housley
Michael M. Smith

Editorial Assistant
Laura Solla

Art Editor
Ted Kole

Telephone
Plane News: 3293
Plane News from outside line: 516-575-3293

Navy consolidates Pt. Mugu functions

The U.S. Navy has consolidated the Pacific Missile Range and the Naval Missile Center into the Pacific Missile Test Center (PMTC) under the command of Rear Adm. John Thomas, and, according to the Navy, the introduction of this new concept in management principles at Pt. Mugu is expected to lead to an increased effectiveness in operations.

Admiral Thomas' command extends from PMTC headquarters at Pt. Mugu to the Channel Islands off the California coast to the broad ocean areas of the Pacific. The basic missile range includes a sea test strip 500 miles long, paralleling the California coast and extending 250 miles seaward. A few of the more important programs currently under PTMC management include: The F-14A/Phoenix Weapons System; Harpoon; Sparrow III; and Sidewinder.

Questions on benefits?

Having trouble filling out your insurance claims? Obtaining a dental form? Have a question about the Investment Plan? Here are the numbers to call for all your "benefit" questions: General insurance information, Ext. 3146; dental insurance, Ext. 3044; Investment Plan, Ext. 7250.

letters

April 25, 1975

To the editor:

I've only been playing golf for a few years and I enjoy it. I started shooting in the low 70's, and after a while I broke into the low 60's (for nine holes that is). If I had a good day I'd shoot in the upper 50's. But every beginning golfer's hope is to break the magic "50" for nine holes.

Then Mike Cherry of GAA conducted a golf clinic of four sessions last fall. I went, watched, listened, and then tried to put it all together and ... SHAZAMM ... my next three scores were 54, 52, and, finally, 50 (with witnesses) on the Bethpage Red course.

Thank you Mike, it was beautiful to watch you work. You're a real pro and a great teacher. I'm looking forward to your next sessions, but how about at the beginning of the season ... like now!!!

Sincerely,
/s/ Milt Fishman

obituaries

ELIO MAZZOCCHI of Maint.-Rearrangement, Plant 36, died April 17 at the age of 52. He had been with the company since 1966 and lived at 14 Chyam Street, North Babylon.

SALVATORE COSTELLO of Sub-Assy., Plant 1, died April 24 at the age of 49. He had been with Grumman since 1966 and lived at 950 No. Queens Avenue, Lindenhurst.

GREGORY KIERDORF of Details and Subs. Fabrication Management, Plant 2, died April 24 at the age of 55. He had been with Grumman since 1941 and lived at Orchard Street, Roxbury.

FRANK ADOLFO ARENA of Maint.-Rearrangement, Plant 12, died April 27 at the age of 54. He had been with the company since 1965 and lived at 1647 Woodbine Street, Ridgewood.

People key element in Iranian F-14 sale

January 1976 is less than eight months away and nobody knows that fact better than the men and women who are preparing for delivery of the first F-14s to Iran the beginning of next year. This massive effort will provide Iran with a total of 80 F-14s over a period of three years and will require the participation of thousands of Grummanites both here and in Iran.

"One of the keys to this operation will be personnel — both American and Iranian — who will turn the excellent hardware we have into effective fighting units," says Bill Borruso, manager of F-14 Training. Borruso's job is to train Iranian personnel in the care and feeding of their new flock of F-14s, provide them with maintenance trainers and all other necessary training media, and as quickly as possible "work ourselves out of a job."

The Imperial Iranian Air Force (IIAF) is aiming for self-sufficiency in all levels of aircraft maintenance, and to achieve that goal some 80 Grumman instructors will be moving to Iran the end of the year to teach the Iranians how to teach, in turn, their compatriots the intricacies of maintenance and supply for the IIAF's new Tomcats. This instructional effort, a massive one in keeping with the massive program it supports, will face all the challenges traditional to any large new program, as well as a host of new ones such as language and cultural barriers (the Grumman instructors will learn Farsi, though instruction will be based on English), problems of distance, and the basic challenge of providing advanced technical training in a nation rapidly developing on a broad technological front.

People and equipment. Instructors check out part of F-14 maintenance trainer (in background).

Just laying the groundwork for this effort took months of planning. A Site Survey in April 1974 produced an initial training plan the size of Webster's Unabridged Dictionary. A revised plan was produced a few months later when the IIAF increased its intended purchase from 30 to 80 aircraft.

"The intent of the survey," says Fred Atkins, F-14 Personnel Planning, "was to determine who it is we want to train, types of people we want to train and the different skills required."

"We started out the survey knowing very little about the IIAF and its requirements," says Don Wolf of the Customer Training Department, "so we had a lot of learning to do in a very short time." One of the first things Grumman learned was that the IIAF was organized and run along the lines of the U.S. Air Force. As a result Grumman has had extensive consultation and cooperation with the U.S. Air Force in order to adjust to Air Force training and skill codes.

Although the first Grumman instructors will not leave for Iran until next year, the customer training for Iran has already begun. On May 5 seven Iranian officers arrived at Grumman to begin maintenance training on the F-14. They will be followed, beginning in June, by the gradual induction of 115 additional Iranian maintenance personnel.

"There will be over 700 Iranians in the U.S. — just a portion of the total 3,000 Iranians who will be trained both here and in Iran under the Grumman program" says Frank Mann, manager F-14 Iran Maintenance Training.

Although a good portion of the instruction will be supplied by the Navy, the Air Force and Grumman associate contractors (such as Hughes Aircraft and Pratt and Whitney), the entire training program has been designed and planned by Grumman with the cooperation of the associate contractors. Every Iranian being trained in the U.S. will go through 10 weeks of the English Language School of the Defense Languages Institute at Lackland Air Force Base, Texas. Language training will be followed by 10 to 15 weeks of prerequisite training under Air Force auspices. Iranians being trained in specific skills will spend from five to 23 weeks at Grumman for F-14 training including one week in a familiarization course that will stress aircraft safety.

All Iranian maintenance technicians at Grumman will receive Supervised Practical Training (SPT) — actual "hands-on" aircraft training. SPT follows the academic training and the practical laboratory exercises on maintenance trainers in Plant 39. The maintenance training aircraft that will be used for the SPT part of the course will be on loan from the Navy and will be hangared in Plant 4.

The largest portion of Grumman's customer training effort will take place in Iran, however. Grumman Customer Training has contributed to the planning and layout of the training schools in Isfahan, where the major training effort will be centered. Customer Training will also review all the maintenance facilities in Iran, the interrelationship of personnel there, and what tasks they will be assigned to.

After a couple of years, when the Grumman training effort is over, the IIAF will have a full-blown school with maintenance trainers and other equipment, training manuals and, most importantly, an experienced staff of F-14 instructors.

Says Steve Kertesz, assistant F-14 training manager for training, "When we're finished we'll stand in the back of the classroom, observe how the IIAF instructors are performing — and then we'll go home."

Smile! An instructor (on screen in rear) runs through a practice session for benefit of the TV camera. Later he will review a video tape of his "performance" to assess his teaching skills.

calendar

Notice of events for period May 30 to June 13 should reach Plane News by May 19.

Amateur Radio Club: Wed., May 21, 5 p.m., roof of Pl. 5; ARRL Field Day planning; guests welcome. Emmett Goodman, Ext. 87125.

Chess Club: Every Tues., 5 p.m., Pl. 30 cafe; guests welcome. Pat Charovkine, Ext. 7915.

Coin Club (Bethpage): Every Wed., 12:05 p.m., vendor conference room, Pl. 25; informal lunchtime meeting. Ken Hale, Ext. 1936.

Coin Club (Calverton): Every Fri., 1st lunch period, instrumentation conference room, Pl. 6; visitors welcome. Jerry Kreussling, Ext. 415.

Duplicate Bridge Club: Every Thurs., 6 p.m., Pl. 30 cafe; partnerships arranged; guests welcome. Phil Hodge, Ext. 1195.

Fencing Club: Every Mon., 4:30-6:00 p.m., Pl. 30 cafe. George Kegney, Ext. 86048.

GAC Divers: Wed., May 14, 5 p.m., Pl. 28 auditorium; general membership meeting. S. Failer, Ext. 86338.

GACE Flying Club: Fri., May 9, 5 p.m., Pl. 28; film presentation; guests welcome. Betty Schledorn, Ext. 7372.

Grumman Cycle Touring Club: Mon., May 12, 5 p.m., Pl. 28 auditorium; bicycle conditioning; Sun., May 18, 9:30 a.m., Class (C) ride; guests welcome. Dave Hartman, Ext. 86212.

Grumman Family Campers: campout May 23-26, Calverton picnic grounds. Earl Schroeder, Ext. 1923 (nights).

Grumman Toastmasters Club: Wed., May 14, 5 p.m., conference room 1C, Pl. 25; regular meeting; guests welcome. Frank Locascio, Ext. 3683.

Instrument Society of America: Thurs., May 15, cocktails 6 p.m., dinner 7 p.m., meeting 8 p.m., Old Field's Inn, Greenlawn; election of 1975-76 officers; speaker from Pan American Airways; guests welcome. Rich Romaneck/ Ken Budd, Ext. 2275.

Rod & Gun Club: Every Mon., 8-10 p.m., Naval Reserve Training Center, Huntington; every Tues., 6-8 p.m., Colonial Firearms, Levittown; every Thurs., 6-10 p.m., Old Bethpage Club Range, W. Babylon; every Fri., 6-8:30 p.m., Marine HQ Range, Garden City; practice & matches; open to all Grummanites. Call GAA for information.

Ski Club: Wed., May 21, 8:30 p.m., Plaza Restaurant, corner of Newbridge & Old Country Rd., Hicksville; guests welcome. Donna Marie Petresky, Ext. 6466.

Society of Manufacturing Engineers: Mon., May 12, 8 p.m., Polytechnic Institute Brooklyn Graduate Center, Rt. 110, Farmingdale; Engineering Structural Form; guest speaker: William Goerick of Celanese Plastics Company; guests welcome. Sol Schneider, Ext. 2844.

Stamp Club: First 3 Wed. of each month, 5 p.m., Pl. 30 cafe. Steve Hoops, Ext. 3926.

'Pick-pockets.' That's just what John DeMarco (R) and Jim Kempton did in the annual GAA pocket billiard tourney. DeMarco captured first place by defeating Kempton in the finals, 100-97. (Photo by Richard Breunig)

DeMarco, Kempton run 2-man show in billiards play

It was the first time John DeMarco and Jim Kempton entered the annual GAA-sponsored pocket billiards tournament. And the other 25 contestants are wishing that it was their last. Both cue men dominated the action throughout the early stages and into the final showdown — which according to tourney director, Mike Cherry, was one of the best in tourney history.

DeMarco breezed through the early contests bumping off Keith Darby, 75-15; Ken Lango, 75-61; Kenneth Huneken, 100-45; and Jim Kempton, 100-94. One Kempton's route to the final round, he knocked off Cosmo Scura, who was the tourney champ for the past three years, 75-54; and five-time titleholder, George Massey, 100-95. After losing to DeMarco, 94-100, Kempton rose out of the loser's bracket by defeating Massey again, 100-14.

DeMarco, who had already captured the Grumman billiard spot league title, played a mean game against Kempton in the finale. For a while, it looked as if the Plant 43 industrial engineer was about to capture the crown, since he had a 97-84 lead. But DeMarco ran the next 16 balls to snatch the 13th annual tourney title. That meant DeMarco not only had to clear the table of a whole rack, but he had to sink the last ball on the rack, hit into a new rack and sink a ball in the pocket!

Martial arts club growing strong

The Grumman Martial Arts Club is growing in leaps and bounds. Every Monday, Tuesday, and Wednesday, in the Plant 35 cafeteria, from 5:30 to 7 p.m., karate students diligently perform their exercises.

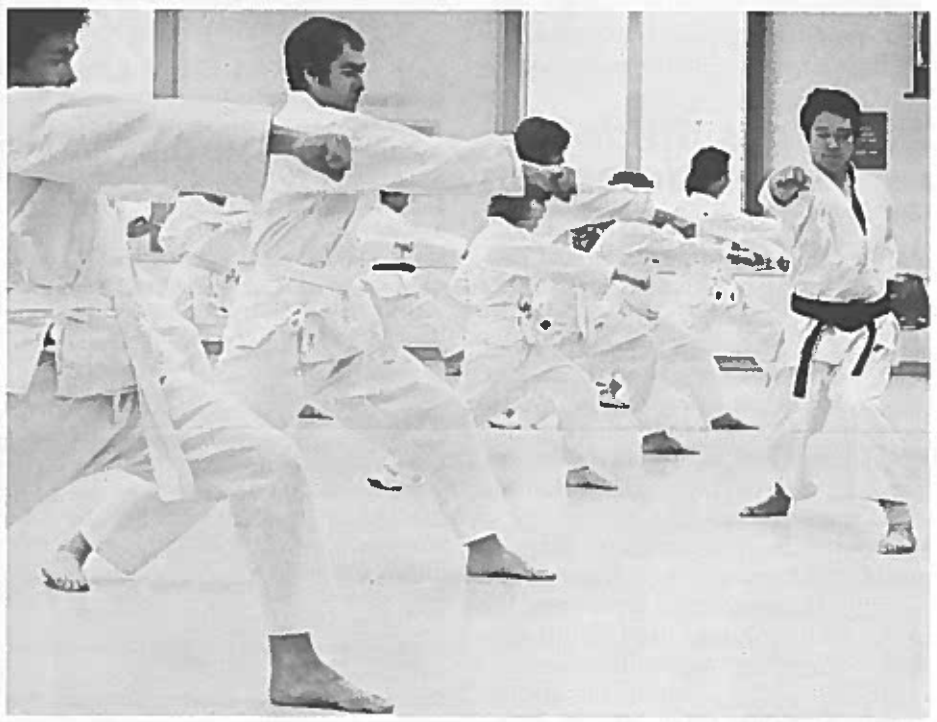
The Grumman club is fully accredited by the Japan Karate Association, the N.Y. Karate Association, and the All-American Karate Association. Every night there are guest instructors from the N.Y. Karate Club. For the next few weeks, Masataka Mori a seventh degree black belt, and Akihito Iasaka who holds a fifth degree black belt, will be instructors.

Now that the Martial Arts Club has been accredited by the New York Karate Association, club members can qualify for promotions in the art of karate.

Among those Grummanites who have been recently promoted are: Green belt — Ron Ibanez, 6th Kyu; Tony Ortiz and Jeff Cosman, 6B Kyu; Two stripes — Steve LaSala, Glynn Fasano, Jon Jirkup, 7th Kyu; 7B Kyu — Don Cleary; One Stripe (8th Kyu) — Andy DaPuzzo, John Cattonar, Scott Strong, Steve Dombrowiecki, Dave Shapiro, Linda Diehl.

Aikido classes begun

All Grummanites and their family members are welcome to join the aikido classes that have just begin. Club instructor Vic Resmini says that there is still additional room for students in his classes, which meet every Tuesday evening at 5:30 at the Kramer Lane Grammar School in Bethpage. For more information, contact GAA, Plant 30, on Ext. 2133.



Karate crew. Akihito Iasaka (R), a fifth degree black belt, instructs the Grumman Martial Arts karate class. (Photo by Richard Breunig)

Set tennis tryouts

Men's varsity tennis tryouts will take place on Tuesday, May 20 and May 27, at Bethpage Tennis Time on Hempstead Turnpike at 5 p.m. For additional information, contact Jay Long, Ext. 2239.

Women's varsity tennis trials will be announced shortly. If you wish to try out for the team, call Rita Looney, GAA, on Ext. 2133 or 2269.

Mixed tourney slated

Tennis buffs, grab a partner. The first annual GAA Mixed doubles tourney is nearing. To be eligible to compete, you must send in your name, department, plant, and telephone extension to Chet Baumgartner, GAA, Plant 30. If you do not have any particular partner lined up, Chet says that GAA will try and find a tennis partner for you. All entries must be in the GAA office no later than May 30.

'Sport'lighting at Grumman

WYANDANCH — Hilda Perez and Angelo Stefanos rose out of the loser's bracket in the Plant 27 mixed shuffle board tourney to knock the undefeated Helen Horton-Ed Boyle team into a final showdown. Perez-Stefantos continued their victory sweep, 79-43, 68-35, 42-72, 74-34 to win the doubles crown.

STUART, FLA. — On the Plant 77 softball diamonds, the Army Tigers were recently pitted against the Grumman Kittens. The big cats outclawed the Kittens, 11-3. On March 16, Gruwell's Gorillas mauled the Army Tigers, 6-2 ... On the fairways, Walter Eichen won his first tournament March 1 at the Martin County Golf Club with a net score of 65 ... In the Martin County Women's Bowling Tournament, Janice Uhl rolled 666 series for fourth.

WOODBURY — Plants 34C and 34E, entered 26 doubles teams in the table tennis tourney for the Woodbury championship. Plant 34C champs, Jack Holt and John Rappa, defeated Plant 34E's Ray Maniello and Mike Boyle. In the women's table tennis tourney, which drew 16 teams, Ellen Steimle-Carol Zambrano duo won the championship by defeating the Marge Doldererf-Karen Strebel team, 22-20, 23-22, 21-18.

In men's quoits competition, Phil Ferreri and Ken Crawford of Plant 34E teamed up to win the Woodbury title by defeating Plant 34C's Bob Beck and Tony Martello. And in women's play, Pat Levy and Pat Shannon captured the quoits title with a sweeping victory over Marge Doldererf and Pauline Avallone.

GREAT RIVER — The day and night shifts recently completed table tennis tourneys. In daytime singles championship match, Paul Giambalvo defeated Marvin Lewis, 21-10, 19-21, 21-14.

In the night singles' and doubles' competition, the rule of play turned out to be "Those who rise out of loser's bracket are deadly." Doubles team of Paul Mertz-Ray Whelan beat undefeated duo of Willimae Farley-Mike Maggiore thus forcing an additional match. Mertz and Whelan kept up their winning streak, 12-21, 21-19, 21-10 to capture the championship.

In singles play, Albert Sanders handed Rudy Dunkley his first loss which set the stage for a final showdown. Sanders went on to win the title 21-13, 13-21, 21-13, 21-16.

Everybody can get in the act... and finale could bring big prize

According to John Conover of the Motivational Programs Office, Grumman Aerospace is the only corporation that he knows of that opens its employee suggestion program to *all* employees. In other words, everyone — from top management to trainees — can suggest a better way to do her or his job — and it is not limited to manufacturing, or engineering, or administration.

All employees, in any plant, are urged to submit suggestions and are eligible for awards. Don't hold back submitting a suggestion because you think it may be in the area of your job responsibility; the Suggestion Awards Committee will determine that fact and the proper amount of any possible award.

Should you verbally make a suggestion to your supervisor and the idea is implemented immediately, you may submit your idea after it has been put into use, provided you submit an Employee Suggestion form, describing the improvement made, within 90 days after implementation.

If you have any questions concerning your participation in the Employee Suggestion System, contact the Motivational Programs Office, in Plant 5, on Ext. 87311 or 1329.

The following awards for March are in addition to the ones already announced in the last issue of *Plane News*.

$1150 — Eugene Troska/William Gordon, N.C. Profilers, Pl. 3.

$1100 — Dominick Chiaiese of Fluids and Paul Stein of Prod. Mgmt., both of Pl. 6; Frank Krejnichy, Parts Paint, Pl. 27.

$950 — William Rooney, Hydraulics, Pl. 1.

$900 — Joseph Warren/Richard Baughan, Final Assy., Pl. 1.

$750 — Carl Franz, Instr.-Sys. Des.; Raymond Polniak, Meas. Std., both of Pl. 6.

$700 — Frederick Pacelli/Edward Piendgensky, Drop Hammer, Pl. 2; John Fleischman Sr., Avionics, Pl. 6.

$650 — Donald Kopejzna, N.C. Profilers, Pl. 3.

$575 — John Harms, N.C. Profilers, Pl. 3.

$500 — James Eng, Propulsion Test, Pl. 2; Willie Bailey/Matty Taibi/Ray Bell, and Edward Zbikowski, F-14 Struct. Wings, all of Pl. 3.

$450 — Elie Gendron/Howard Lynch, Prod. Control, Pl. 3; Louis Perotti, Avionics, Pl. 6.

$425 — Joseph Mattera, Hydraulics, Pl. 2; John Transue, Ordnance, Pl. 6.

$400 — Arnold Moran/Robert Edwards, Conv. Mach., Pl. 3; Raymond Polniak/Francis Mooney, Meas. Std. Adm., Pl. 6; Stanley Miron, Warehouses, Pl. 21.

$375 — Charles Randazzo, Fuse-Sub Assy., Pl. 1.

$350 — Thomas Seman/Nicholas Maniscalco, Avionics, Pl. 6.

$325 — Nicholas Maniscalco, Avionics, Pl. 6.

$300 — James Villani, Fuse Sub Assy., Pl. 1; Richard Migliorisi, Hydraulics, Pl. 2; Michael Jinglewski, Honeycomb Bonding, Pl. 3; Harry Weir/Robert Munyer Jr./William Wypyski, PPO—E-2, Pl. 15.

$275 — Edward Connor, Sub Assy., Pl. 1.

$250 — Franklin Rubie, Form Block, Pl. 2; Nickolas Fico, Trans.; John Zielinski, Meas. Stds. Lab., both of Pl. 6.

$225 — Bruno Appolonio, Fuse Joining, Pl. 1; Edward Shumski, Fiberglass, Pl. 27.

$200 — John Caulfield, Fuse-Sub Assy.; Nicholas Hadjigeorge/Nicholas Soley Jr., Crew & Equip.; Bertram Rieger/Albert Smith, Final Assy., all of Pl. 1.

$175 — Albert Stabile, Major Assy., Pl. 1; Raynar Timmers, Conv. Mach., Pl. 3; Robert DeSolms, Meas. Std. Lab.; Ewald Barty, Avionics, both of Pl. 6.

$150 — Gerard Brinker (two-time winner), Sub Assy., Pl. 1; Anthony Benevento, Conv. Mach.; William Twinem, Conv. Mach. and Kenneth Lampel, N.C. Mach., all of Pl. 3; Ralph Warren/Martinus VanEssendelft, both of Final Assy., and Stanley Orlasky, Assy. Insp., all of Pl. 6; Walter Kalwara, Meas. Stds. Lab., Pl. 12; William Matthews; James Odom/Robert Madden; Ronald Stevens/John Curtin, all of Machine Shop, Pl. 56.

$125 — August Krastel, Jr.; Carlos Montenegro, both of Sub Assy. Major, Pl. 1; William Hubschman, Assy. Tools & Hand Equip.; Walter Bubb, E-2C Center Sect.; Frank Farina; Walter Blenner, both of F-14 Struct. Wings, all of Pl. 3; Wallace Kondratowicz, Meas. Std. Lab.; Nicholas Maniscalco, Avionics; Gerald Fenton, Final Assy., all of Pl. 6; Ronald Fagan, Avionics, Pl. 7.

$100 — Warren Davis, Contracts F-14, Plant 1; Joan Pavlat, Sub-Contracts, Plant 25; Bernard Mallow, PPO F14; James Villani; Francis Loiacono, both of Fuse Sub Assy.; Daniel Timonev, Sub Assy.; Frank Rule/Frank Abbondondolo; August Krastel, Jr.; Robert Lentino/Frank Abbondondolo, all of Sub Assy. Major, Pl. 1; John Mazza, Methods Engg., Pl. 2; Edward Wisnewski, Conv. Mach.; James Jack, N.C. Mach, both of Pl. 3; Joseph Syracuse; John Burckley, both of Seller Des. Equip., Pl. 30; William Sinski, Avionics, Pl. 6; Marvin Thorne, Industrial Safety, Pl. 6; Bruce Nason/Donald Buniski, Avionics, Pl. 8; Joseph Conlan, P/S Prog. Contr., Pl. 35; Randolph Aversano/Robert Dietz, Mach. Shop, Pl. 56; Neil Bishop/Jimmie Moore, Wire Room, Pl. 77.

$75 — Leonard Bonadonna; Gerard Brinker; Howard Finley, all of Sub Assy.; James Villani, Fuse Sub Assy., all of Pl. 1; Emil Calabria; Franz Winnes, both of Conv. Mach., Pl. 3; Ralph Warren/Martinus VanEssendelft, Final Assy., and Stanley Orlasky, Assy. Insp., (all two-time winners) of Pl. 6; Bruce Abel, Equip. Engg., Pl. 30.

$50 — Clement Joie Jr./Salvator Tranchina, Sub Assy. Major; Leonard Bonadonna; William Szeglin; Felix Alfano (a two-time winner), all of Sub Assy., Pl. 1; Lawrence Fontana, Steel Parts Assy., Pl. 2; Margaret McConnell (a two-time winner), Paint Shop; Raymond Wrobleski, N.C. Profiler; James Seage, N/C Mach.; Charles Hunter, Engraving; John Zeltmann, Conv. Mach., all of Pl. 3; Bradley Clark, Avionics; Frank DeQuarto, Final Assy., and Fred Danz (now retired), all of Pl. 6; Olaf Costello/William Tennant, Inventory Control, Pl. 30; Karl Bender, Center Sect. Major, Pl. 36.

Saying 'so-long.' It's no wonder President George Skurla looks happy. He's presenting Cdr. Jim Roth, Resident Naval Officer in charge of Calverton with the log books of F-14 No. 134, the last of the Tomcats in Lot 5 ... and, by the way, the last of the money losers for Grumman Aerospace. In total, Grumman suffered losses of $230-million on the F-14 program. Helping to mark the event with Skurla and Roth (2nd R) are Jim Peters (L), Plant 7 manager, and Frank Messina (R), who heads Calverton Operations. (Photo by Dick Sander)

List film schedule on cancer detection

In recent months there has been much publicity given to breast cancer detection. According to the American Cancer Society, the chances are 15 to 1 that a woman will never get this type of cancer, but if a woman does develop breast cancer and, thanks to self-examination detects it in its early stages, chances are two out of three that her cancer will be curable.

The Grumman Medical Department is offering a free film on detecting breast cancer, "Where We Are," featuring Jennifer O'Neill. The following screenings will be held:

BETHPAGE — Plant 28 auditorium, Tuesday, May 27, at 11:45 a.m. and 12:30 p.m., and on Wednesday, May 28, same place, same times.

CALVERTON — TV room, Plant 6, Thursday, May 29, 1 p.m. (call Helen Lapen on Ext. 601 if interested).

GREAT RIVER — Plant 43 cafeteria, Friday, May 30, 9 a.m. and 6:30 p.m.

GRUMMAN plane news

ADDRESS CORRECTION REQUESTED

BULK RATE
POSTAGE PAID
BETHPAGE, N.Y. 11714
PERMIT NO. 264

Vol. 34, No. 9, May 9, 1975, Bethpage, N.Y. 11714